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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,845	03/30/2004	Peter E. Hart	20412-08457	6503
758	7590	09/12/2007		
FENWICK & WEST LLP SILICON VALLEY CENTER 801 CALIFORNIA STREET MOUNTAIN VIEW, CA 94041			EXAMINER THOMPSON, JAMES A	
			ART UNIT	PAPER NUMBER
			2625	
			NOTIFICATION DATE	DELIVERY MODE
			09/12/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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## Office Action Summary

Application No.

10/814,845

Applicant(s)

HART ET AL.

Examiner

James A. Thompson

Art Unit

2625

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 5/18/07, 6/21/07, 7/20/07.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-37 and 57-62 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-37 and 57-62 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 6/21/07, 7/20/07.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_.

**DETAILED ACTION*****Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 18 May 2007 has been entered.

***Response to Arguments***

2. Applicant's arguments filed 18 May 2007 have been fully considered but they are not persuasive.

Ishikawa (USPN 5,987,226) does not teach away from the presently recited claims since Ishikawa is relied upon for its teachings with respect to resource allocation *via* a parallel processing scheme, and not for its teaching with respect to how a printer itself processes data. Ishikawa teaches that a print job is processed in parallel by a plurality of processors (column 6, lines 45-56 and column 7, lines 28-33 of Ishikawa – as cited in final rejection mailed 21 February 2007). It is Sugiyama that teaches a printer which actively performs image data processing itself. The combination of the two references results in a system whereby a printer with its own image data processor (as in Sugiyama) distributes its workload among a plurality of processors such that the image data processing is performed in a parallel manner with the processing distributed in particular percentages across said plurality of processors.

Further, Applicant's present amendments to the claims, which have been entered, are fully addressed by the prior art rejections set forth below. While Sugiyama (USPN 5,633,723) does teach some form of external system, since the input video stream must come from some sort of system, it does not necessarily follow that said external system is an external *processing* system. Said system could conceivably be, for example, a camcorder with RCA cables plugged into the interface of the system of Sugiyama, thus providing a non-processed video stream from a recorded video tape. However, in the art, video data does often come from a processor which processes video data. Thus, by combination, the system of Sugiyama in view of Ishikawa obtains the video data specifically from some form of video data processor.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1, 4-5, 8, 11, 17, 19, 34-37 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiyama (US Patent 5,633,723) in view of Ishikawa (US Patent 5,987,226).**

**Regarding claim 1:** Sugiyama discloses a printer (figure 1 and column 2, lines 62-63 of Sugiyama) for printing time-based media (column 3, lines 11-16 of Sugiyama), the printer comprising:

- a media processing system (figure 1(12-17,21-29) of Sugiyama) embedded within the printer (as can be seen in figure 1 of Sugiyama) for generating an electronic representation (column 6, lines 19-26 of Sugiyama) of time-based media (column 3, lines 12-17 of Sugiyama);
- an electronic output system (figure 1(18-20) of Sugiyama) for producing a document on a media from the electronic representation of the time-based media (column 4, lines 45-54 of Sugiyama); and
- a housing (the overall physical construction of the system of figure 1 of Sugiyama) for supporting an interface (figure 1(11) of Sugiyama) for transferring time-based media between the printer and an external system (column 3, lines 11-20 of Sugiyama), and for supporting the electronic output system (as can clearly be seen in figure 1 of Sugiyama since the electronic output system is a part of the overall printer) in communication with the media processing system to receive the electronic representation (column 3, lines 35-41 of Sugiyama).

Sugiyama does not disclose expressly that the external system is specifically an external *processing* system; and a resource allocation module embedded within the printer for determining processing allocation for one or more tasks among the printer and the external processing system, wherein the resource allocation module controls the external processing system to process the one or more tasks.

Ishikawa discloses performing processing on an external processing system (figure 1(15) and column 6, lines 52-56 of Ishikawa); and a resource allocation module (figure 1(9) of Ishikawa) embedded within the printer (as can be seen in figure 1(1) of Ishikawa) for determining processing allocation for one or more tasks among the printer (figure 1(4') of Ishikawa) and the external processing system (figure 1

Art Unit: 2625

(15) of Ishikawa), wherein the resource allocation module controls the external system to process one or more tasks (column 6, lines 45-56 and column 7, lines 28-33 of Ishikawa).

Sugiyama and Ishikawa are combinable because they are from the same field of endeavor, namely the control and processing of multi-media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to perform the time-based media processing using parallel processing and including the resource allocation module taught by Ishikawa. Thus, the external system providing the video signal (taught by Sugiyama) is specifically an external processing system operating in parallel with the printer. The motivation for doing so would have been that parallel processing increases the overall speed with which media data can be processed (column 3, lines 40-48 of Ishikawa) and proper load balancing maximizes the efficiency of the parallel processing. Therefore, it would have been obvious to combine Ishikawa with Sugiyama to obtain the invention as specified in claim 1.

**Further regarding claim 4:** Ishikawa discloses that the external system is a remote external service system coupled via a network to the interface for transferring time-based (by combination with Sugiyama) media, the external service system in communication with the media processing system for performing at least some processing steps for the time-based (by combination with Sugiyama) media (column 6, lines 45-52 of Ishikawa).

**Further regarding claim 5:** Ishikawa discloses a user interface (figure 1(17) of Ishikawa) for receiving user input indicating selection of one or more media processing resources from among resources of the printer and the external system (column 6, lines 33-40 of Ishikawa).

**Further regarding claim 8:** Ishikawa discloses that the printer is coupled to the external system (column 6, lines 45-52 of Ishikawa) providing a user interface (figure 1(17) of Ishikawa) to the printer, the user interface for receiving user input indicating selection of one or more media processing resources from among resources of the printer and the external system (column 6, lines 33-40 of Ishikawa).

**Regarding claim 11:** Sugiyama discloses that the interface comprises a communication interface (figure 1(11) of Sugiyama) allowing the system to be communicatively coupled to an electronic device, the electronic device providing the time-based media to the system (column 3, lines 12-17 of Sugiyama).

**Regarding claim 17:** Sugiyama discloses that said interface comprises embedded screen capture hardware (figure 1(12) and column 3, lines 12-16 and lines 20-24 of Sugiyama).

**Regarding claim 19:** Sugiyama discloses that said interface comprises an embedded video recorder (figure 1(11) of Sugiyama), wherein the time-based media (figure 1("Video Signal") of Sugiyama) is a series of images captured by the embedded video recorder, converted into an electronic

Art Unit: 2625

format (column 3, lines 12-17 of Sugiyama), and then provided to the media processing system (column 3, lines 16-20 of Sugiyama).

**Regarding claim 34:** Sugiyama discloses that said media processing system determines a printed representation of the time-based media data (column 5, line 66 to column 6, line 5 of Sugiyama); and the system further comprises a printed output system (figure 1(31-33) of Sugiyama) in communication with the media processing system (column 5, line 63 to column 6, line 2 of Sugiyama) to receive the printed representation (column 5, line 66 to column 6, line 5 of Sugiyama), the printed output system producing a corresponding printed output from the printed representation of the time-based data (column 6, lines 2-5 of Sugiyama).

**Regarding claim 35:** Sugiyama discloses that said printed output system is one of the group of a laser printer, an inkjet printer, a thermal wax transfer printer, a dye sublimation printer, a dot matrix printer, and a plotter (column 7, lines 48-53 of Sugiyama).

**Regarding claim 36:** Sugiyama discloses that said user interface provides information to a user about at least one of the printed representation and the electronic representation of the time-based media (column 3, lines 45-48 of Sugiyama), said user interface further accepting input from a user to cause said media processing system to modify at least one of the printed representation and the electronic representation of the time-based media (column 3, lines 57-61 of Sugiyama).

**Regarding claim 37:** Sugiyama does not disclose expressly that the media processing system determines at least one of the printed representation and the electronic representation with assistance from the external system that is an external computing device.

Ishikawa discloses that the media processing system determines at least one of the printed representation and the electronic representation with assistance from the external system that is an external computing device (column 6, lines 45-52 of Ishikawa).

Sugiyama and Ishikawa are combinable because they are from the same field of endeavor, namely the control and processing of multi-media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the external computing device to assist in determining at least one of a printed representation and an electronic representation, as taught by Ishikawa. The motivation for doing so would have been to increase the overall speed with which media data can be processed (column 3, lines 40-48 of Ishikawa). Therefore, it would have been obvious to combine Ishikawa with Sugiyama to obtain the invention as specified in claim 37.

Art Unit: 2625

**Regarding claim 57: Sugiyama discloses:**

- receiving user input indicating selection of one or more media processing resources (column 3, lines 41-50 of Sugiyama); and
- determining the electronic representation (column 6, lines 19-26 of Sugiyama) of the time-based media using the determined resources (column 3, lines 12-17 of Sugiyama).

Sugiyama does not disclose expressly that said resources indicated by said user input are from among resources of the printer and an external processing system; determining, by the printer, processing allocation for one or more tasks among the printer and the external processing system, wherein the printer controls the external system to process the one or more tasks; and that said determined resources, used to determine the electronic representation of the time-based media data, are specifically the determined *allocation* of resources.

**Ishikawa discloses:**

- selecting one or more media processing resources from among resources of the printer and an external processing system (column 6, lines 45-52 and column 7, lines 28-33 of Ishikawa); and
- determining, by the printer, processing allocation for one or more tasks among the printer (figure 1(4') of Ishikawa) and the external processing system (figure 1(15) of Ishikawa), wherein the printer controls the external system to process the one or more tasks (column 6, lines 45-56 and column 7, lines 28-33 of Ishikawa).

Sugiyama and Ishikawa are combinable because they are from the same field of endeavor, namely the control and processing of multi-media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to perform the media processing in parallel on two separate processors, with a unit for controlling precisely how the processing resources are allocated among the two processors, as taught by Ishikawa, the first processor being the multi-media printer taught by Sugiyama and the second processor being an external media processing system, as taught by Ishikawa. Thus, the determined resources, by combination, are a determined allocation of resources. The motivation for doing so would have been that parallel processing increases the overall speed with which media data can be processed (column 6, lines 45-52 of Ishikawa). Therefore, it would have been obvious to combine Ishikawa with Sugiyama to obtain the invention as specified in claim 57.

**5. Claims 2 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiyama (US Patent 5,633,723) in view of Ishikawa (US Patent 5,987,226) and Gropp (*Using MPI – Portable Parallel Programming with the Message-Passing Interface, second edition*).**

**Regarding claims 2 and 58:** Sugiyama in view of Ishikawa does not disclose expressly that said resource allocation module determines whether said printer resource interacts as a master or as a slave with said external system.

Gropp discloses determining whether different processors interact as master or slave processors (page 35, last five lines).

Sugiyama in view of Ishikawa is combinable with Gropp because they are from similar problem solving areas, namely the control of resource allocation in parallel processing systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to control whether said printer resource, taught by Sugiyama in view of Ishikawa, inter-acts as a master or as a slave, as taught by Gropp, with said external system taught by Sugiyama in view of Ishikawa. The motivation for doing so would have been a master-slave algorithm is useful in cases where the processors require minimal communication with each other, such as during matrix-vector multiplication operations (page 35, first paragraph under section 3.6 heading) or during image processing. Therefore, it would have been obvious to combine Gropp with Sugiyama in view of Ishikawa to obtain the invention as specified in claims 2 and 58.

**6. Claims 3, 6-7, 9-10, 12, 21, 26-27, 29, and 59-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiyama (US Patent 5,633,723) in view of Ishikawa (US Patent 5,987,226) and Korman (US Patent 6,308,887 B1).**

**Regarding claim 3:** Sugiyama in view of Ishikawa does not disclose expressly that said external system is another multimedia printer coupled via a network to the interface for transferring time-based media.

Korman discloses an external system (figure 1(20) and column 3, lines 49-52 of Korman) which is another multimedia printer (figure 2(190); column 4, lines 49-41; and column 6, lines 10-13 of Korman) coupled via a network (figure 1(30) and column 3, lines 49-52 of Korman) to an interface (figure 1(10) of Korman) for transferring time-based media (column 5, lines 30-38 of Korman).

Sugiyama in view of Ishikawa is combinable with Korman because they are from the same field of endeavor, namely the control and processing of multi-media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to embody the external system as another



Art Unit: 2625

multi-media printer, as taught by Korman. The motivation for doing so would have been to provide further support for multimedia printers at more than one location (column 2, lines 30-34 of Korman). Therefore, it would have been obvious to combine Korman with Sugiyama in view of Ishikawa to obtain the invention as specified in claim 3.

**Regarding claims 6 and 59:** Sugiyama in view of Ishikawa does not disclose expressly that said user interface displays a request for user input from the external system.

Korman discloses a user interface (figure 2(100) of Korman) that displays a request for user input from an external system (column 4, lines 51-57 of Korman).

Sugiyama in view of Ishikawa is combinable with Korman because they are from the same field of endeavor, namely the control and processing of multi-media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include the display taught by Korman as part of the user interface taught by Sugiyama. The motivation for doing so would have been to be able to display messages and menus, thus providing needed information to the user with regards to the operation of the overall system (column 4, lines 56-59 of Korman). Therefore, it would have been obvious to combine Korman with Sugiyama in view of Ishikawa to obtain the invention as specified in claims 6 and 59.

Further regarding claim 59: Sugiyama discloses that said user interface is embedded on the multimedia printer (column 3, lines 41-44 of Sugiyama).

**Regarding claims 7 and 60:** Sugiyama in view of Ishikawa does not disclose expressly that said user interface displays the processing status of a task being processed by the external system.

Korman discloses a user interface (figure 2(100) and column 4, lines 51-57 of Korman) that displays the processing status of a task being processed by an external media processing system (column 4, lines 12-13 and column 10, lines 53-58 of Korman).

Sugiyama in view of Ishikawa is combinable with Korman because they are from the same field of endeavor, namely the control and processing of multi-media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to display on said user interface the processing status of a task being processed by an external system, as taught by Korman. The motivation for doing so would have been to aid user interaction when processing is occurring in real-time (column 4, lines 8-14 of Korman). Therefore, it would have been obvious to combine Korman with Sugiyama in view of Ishikawa to obtain the invention as specified in claims 7 and 60.

**Regarding claims 9 and 61:** Sugiyama in view of Ishikawa does not disclose expressly that said user interface is part of the external system and displays a request for user input from the printer.

Korman discloses a user interface (figure 2(100) of Korman) that displays a request for user input (column 4, lines 51-57 of Korman). As can clearly be seen in figure 2 of Korman, the user interface (figure 2(100) of Korman) is external from the multi-media printer (figure 2(190) of Korman).

Sugiyama in view of Ishikawa is combinable with Korman because they are from the same field of endeavor, namely the control and processing of multi-media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to display a request for user input on a user interface that is external to the multi-media printer, as taught by Korman. Since the system taught by Sugiyama in view of Ishikawa contains two processing systems, namely a multi-media printer and an external system, then said user interface would be a part of said external system since said user interface is external to said multi-media printer. Since the multi-media printer and the external system communicate with each other, and the user interface receives and displays requests for user input from a plurality of different devices (figure 2 and column 4, lines 51-57 of Korman), then the user interface receives and displays requests for user input from the printer. The motivation for doing so would have been to aid user interaction when processing is occurring in real-time (column 4, lines 8-14 of Korman). Therefore, it would have been obvious to combine Korman with Sugiyama in view of Ishikawa to obtain the invention as specified in claims 9 and 61.

**Regarding claims 10 and 62:** Sugiyama in view of Ishikawa does not disclose expressly that the user interface displays the processing status of a task being processed by a printer.

Korman discloses a user interface (figure 2(100) and column 4, lines 51-57 of Korman) that displays the processing status of a task being processed by a device connected to the network (column 4, lines 12-13 and column 10, lines 53-58 of Korman).

Sugiyama in view of Ishikawa is combinable with Korman because they are from the same field of endeavor, namely the control and processing of multi-media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to display on said user interface the processing status of a task being processed by a connected device, as taught by Korman, wherein said connected device is the printer taught by Sugiyama. The motivation for doing so would have been to aid user interaction when processing is occurring in real-time (column 4, lines 8-14 of Korman). Therefore, it would have been obvious to combine Korman with Sugiyama in view of Ishikawa to obtain the invention as specified in claims 10 and 62.

**Regarding claim 12:** Sugiyama in view of Ishikawa does not disclose expressly that said interface comprises a removable media storage reader.

Korman discloses outputting digital multimedia data to a removable media storage reader (column 7, lines 31-35 and column 10, lines 28-31 of Korman).

Sugiyama in view of Ishikawa is combinable with Korman because they are from the same field of endeavor, namely the control and processing of multi-media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include a removable media storage device as part of said interface. The motivation for doing so would have been to provide a convenient, transportable computer medium for the digital data (column 7, lines 33-35 of Korman). Therefore, it would have been obvious to combine Korman with Sugiyama in view of Ishikawa to obtain the invention as specified in claim 12.

**Regarding claim 21:** Sugiyama in view of Ishikawa does not disclose expressly that said electronic output system is configured to write said electronic representation to a removable media storage device.

Korman discloses outputting digital multimedia data to a removable media storage device (column 7, lines 31-35 and column 10, lines 28-31 of Korman).

Sugiyama in view of Ishikawa is combinable with Korman because they are from the same field of endeavor, namely the control and processing of multi-media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to write said electronic representation to the removable media storage device taught by Korman. The motivation for doing so would have been to provide a convenient, transport-able computer medium for the digital data comprising said electronic representation (column 7, lines 33-35 of Korman). Therefore, it would have been obvious to combine Korman with Sugiyama in view of Ishikawa to obtain the invention as specified in claim 21.

**Regarding claim 26:** Sugiyama in view of Ishikawa does not disclose expressly that said electronic output system is coupled to a speaker system and sends an audio signal to the speaker system.

Korman discloses outputting audio data using a speaker system as a peripheral device (figure 2 (310) and column 7, lines 47-54 of Korman). In order for said speaker system to operate as an output, sending an audio signal to said speaker system is inherent.

Sugiyama in view of Ishikawa is combinable with Korman because they are from the same field of endeavor, namely the control and processing of multi-media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to output audio data to a connected speaker system, as taught by Korman. The motivation for doing so would have been to provide the

Art Unit: 2625

appropriate output format if audio output is desired. Therefore, it would have been obvious to combine Korman with Sugiyama in view of Ishikawa to obtain the invention as specified in claim 26.

**Further regarding claim 27:** Korman discloses that said electronic output system comprises an embedded sound player for generating the audio signal (column 5, lines 30-34 of Korman).

**Regarding claim 29:** Sugiyama in view of Ishikawa does not disclose expressly that said media processing system comprises an embedded multimedia server.

Korman discloses an embedded multimedia server (figure 2(10) and column 3, lines 48-56 of Korman).

Sugiyama in view of Ishikawa is combinable with Korman because they are from the same field of endeavor, namely the control and processing of multi-media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include a multi-media server in the overall media processing system, as taught by Korman. The motivation for doing so would have been to provide control and communication relay for the multi-media processing devices comprising the media processing system (column 3, lines 49-52 of Korman). Therefore, it would have been obvious to combine Korman with Sugiyama in view of Ishikawa to obtain the invention as specified in claim 29.

**7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiyama (US Patent 5,633,723) in view of Ishikawa (US Patent 5,987,226), Hymel (US Patent Application Publication 2003/0220988 A1) and Kleinrock (US Patent 5,936,542).**

**Regarding claim 13:** Sugiyama in view of Ishikawa does not disclose expressly that said media input device is selected from a group consisting of a DVD reader, a video cassette tape reader, a CD reader, an audio cassette tape reader, and a flash card reader.

Hymel discloses a media input device selected from among a DVD reader (para. 10, lines 14-15 and lines 20-21 of Hymel), a video cassette tape reader (digital camcorder, which, as is well-known in the art, uses a digital video (DV) cassette tape) (para. 10, lines 14-15 and line 20 of Hymel), a CD reader (para. 10, lines 14-15 and lines 19-20 of Hymel), and an audio cassette tape reader (audio cassette tape reader is a type of audio player, MP3 player is merely an example) (para. 10, lines 14-15 and line 19 of Hymel).

Sugiyama in view of Ishikawa is combinable with Hymel because they are from similar problem solving areas, namely the control of data storage and output. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have available for selection a DVD reader, a video cassette tape reader, a CD reader, and an audio cassette tape reader. The motivation for doing so would

Art Unit: 2625

have been to allow a user to connect a variety of different types of peripheral devices to an overall system, thus allowing the user to perform a variety of functions (para. 2, lines 1-6 of Hymel). Therefore, it would have been obvious to combine Hymel with Sugiyama in view of Ishikawa.

Sugiyama in view of Ishikawa and Hymel does not disclose expressly that the group consists not only of a DVD reader, a video cassette tape reader, a CD reader, and an audio cassette tape reader, but also a flash card reader.

Kleinrock discloses storing digital data on a flash card, and thus using a flash card reader (column 7, lines 34-35 of Kleinrock).

Sugiyama in view of Ishikawa and Hymel is combinable with Kleinrock because they are from similar problem solving areas, namely the control of data storage and output. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have available for selection a flash card reader. The suggestion for doing so would have been that a flash card reader is simply another of many possible drives from which to choose (column 7, lines 34-36 of Kleinrock). Therefore, it would have been obvious to combine Kleinrock with Sugiyama in view of Ishikawa and Hymel to obtain the invention as specified in claim 13.

**8. Claims 14 and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiyama (US Patent 5,633,723) in view of Ishikawa (US Patent 5,987,226) and Stevens (US Patent Application Publication 2002/0010641 A1).**

**Regarding claim 14:** Sugiyama in view of Ishikawa does not disclose expressly that the interface comprises a media broadcast receiver that can be tuned to a media broadcast.

Stevens discloses a media broadcast receiver that can be tuned to a media broadcast (figure 3 (110) and para. 36, lines 1-8 of Stevens).

Sugiyama in view of Ishikawa is combinable with Stevens because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include the multimedia broadcast receiver taught by Stevens in the interface, thus allowing for reception of an external media broadcaster. The motivation for doing so would have been to allow users to retrieve desired distributions of audio and video data over a controlled broad-cast (para. 4, lines 1-5 of Stevens). Therefore, it would have been obvious to combine Stevens with Sugiyama in view of Ishikawa to obtain the invention as specified in claim 14.

Art Unit: 2625

**Regarding claims 30 and 31:** Sugiyama in view of Ishikawa does not disclose expressly that said multimedia processing system comprises an embedded audio encryption module and an embedded video encryption module.

Stevens discloses an embedded audio encryption module (para. 54, lines 1-4 and para. 57, lines 3-4 of Stevens) and an embedded video encryption module (para. 54, lines 1-4 of Stevens).

Sugiyama in view of Ishikawa is combinable with Stevens because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include the embedded audio encryption module and the embedded video encryption module taught by Stevens as part of said multimedia processing system. The motivation for doing so would have been to allow users to retrieve desired distributions of audio and video data over a controlled broadcast (para. 4, lines 1-5 of Stevens). Therefore, it would have been obvious to combine Stevens with Sugiyama in view of Ishikawa to obtain the invention as specified in claims 30 and 31.

**9. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiyama (US Patent 5,633,723) in view of Ishikawa (US Patent 5,987,226), Stevens (US Patent Application Publication 2002/0010641 A1), Hymel (US Patent Application Publication 2003/0220988 A1), and McCarthy (US Patent 6,296,693 B1).**

**Regarding claim 15:** Sugiyama in view of Ishikawa does not disclose expressly that the interface comprises an embedded receiver selected from a group consisting of an embedded TV receiver, an embedded radio receiver, an embedded short-wave radio receiver, an embedded satellite radio receiver, an embedded two-way radio, and an embedded cellular phone.

Stevens discloses an embedded TV receiver (figure 3(110) and para. 36, lines 1-8 of Stevens), an embedded radio receiver (para. 36, lines 1-8 of Stevens), and an embedded satellite radio receiver (para. 36, lines 1-8 of Stevens) available for selection by a user (para. 36, lines 6-10 of Stevens).

Sugiyama in view of Ishikawa is combinable with Stevens because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have an embedded TV receiver, an embedded radio receiver, and an embedded satellite radio receiver available for selection, as taught by Stevens. The motivation for doing so would have been to allow users to retrieve desired distributions of audio and video data over a controlled broadcast (para. 4, lines 1-5 of Stevens). Therefore, it would have been obvious to combine Stevens with Sugiyama in view of Ishikawa.

Art Unit: 2625

Sugiyama in view of Ishikawa and Stevens does not disclose expressly that said group consists of not only an embedded TV receiver, an embedded radio receiver, and an embedded satellite radio receiver, but also an embedded short-wave radio receiver, an embedded two-way radio, and an embedded cellular phone.

Hymel discloses a cellular phone as an input device (para. 10, lines 14-15 of Hymel).

Sugiyama in view of Ishikawa and Stevens is combinable with Hymel because they are from similar problem solving areas, namely the control of data storage and output. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have the cellular phone taught by Hymel embedded and selectable, as taught by Stevens. The motivation for doing so would have been to allow a user to connect a variety of different types of peripheral devices to an overall system, thus allowing the user to perform a variety of functions (para. 2, lines 1-6 of Hymel). Therefore, it would have been obvious to combine Hymel with Sugiyama in view of Ishikawa and Stevens.

Sugiyama in view of Ishikawa, Stevens and Hymel does not disclose expressly that said group consists of not only an embedded TV receiver, an embedded radio receiver, an embedded satellite radio receiver, and an embedded cellular phone, but also an embedded short-wave radio receiver, and an embedded two-way radio.

McCarthy discloses including a two-way (CB) radio (column 7, lines 13-16 and lines 21-23 of McCarthy) and a radio receiver for receiving short wave radio signals (column 7, lines 13-16 and lines 21-23 of McCarthy).

Sugiyama in view of Ishikawa, Stevens and Hymel is combinable with McCarthy because they are from similar problem solving areas, namely the control of data communication hardware. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include the two-way radio and the short-wave radio taught by McCarthy in the group of selectable embedded receivers. The motivation for doing so would have been to provide the user with means of personal communication. Therefore, it would have been obvious to combine McCarthy with Sugiyama in view of Ishikawa, Stevens and Hymel to obtain the invention as specified in claim 15.

**10. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiyama (US Patent 5,633,723) in view of Ishikawa (US Patent 5,987,226), Federspiel (US Patent 5,170,935), Baron (US Patent 5,940,776), and McCarthy (US Patent 6,296,693 B1).**

**Regarding claim 16:** Sugiyama in view of Ishikawa does not disclose expressly that the interface comprises an embedded receiver selected from a group consisting of an embedded heat sensor,

Art Unit: 2625

an embedded humidity sensor, an embedded National Weather Service radio alert receiver, and an embedded TV Emergency Alert System (EAS) alert monitor.

Federspiel discloses selecting between an embedded heat sensor (column 12, lines 10-18 of Federspiel) and an embedded humidity sensor (column 12, lines 21-24 of Federspiel).

Sugiyama in view of Ishikawa is combinable with Federspiel because they are from similar problem solving areas, namely the control and processing of digital time-based data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to select from among an embedded heat sensor and an embedded humidity sensor, as taught by Federspiel. The motivation for doing so would have been to be able to control the environmental conditions in which a user is present (column 2, lines 5-9 of Federspiel). Therefore, it would have been obvious to combine Federspiel with Sugiyama in view of Ishikawa.

Sugiyama in view of Ishikawa and Federspiel does not disclose expressly that said group consists not only of an embedded heat sensor and an embedded humidity sensor, but also of an embedded National Weather Service radio alert receiver, and an embedded TV Emergency Alert System (EAS) alert monitor.

Baron discloses an embedded National Weather Service radio alert receiver (column 5, lines 45-49 and lines 61-65 of Baron).

Sugiyama in view of Ishikawa and Federspiel is combinable with Baron because they are from similar problem solving areas, namely the control and processing of digital time-based data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include the embedded National Weather Service radio alert receiver taught by Baron in the group of receivers from which a user can select. The motivation for doing so would have been so that a user can stay informed about the latest weather conditions and possible weather emergencies (column 1, lines 23-31 of Baron). Therefore, it would have been obvious to combine Baron with Sugiyama in view of Ishikawa and Federspiel.

Sugiyama in view of Ishikawa, Federspiel and Baron does not disclose expressly that said group consists not only of an embedded heat sensor, an embedded humidity sensor, and an embedded National Weather Service radio alert receiver, but also of an embedded TV Emergency Alert System (EAS) alert monitor.

McCarthy discloses an embedded TV Emergency Alert System (EAS) alert monitor (column 7, lines 13-16 and lines 18-21 of McCarthy).

Sugiyama in view of Ishikawa, Federspiel and Baron is combinable with McCarthy because they are from similar problem solving areas, namely the control and processing of digital time-based data. At



Art Unit: 2625

the time of the invention, it would have been obvious to a person of ordinary skill in the art to include the embedded TV Emergency Alert System (EAS) alert monitor taught by McCarthy in the group of receivers from which a user can select. The motivation for doing so would have been to keep the user alerted to any emergency conditions (column 7, lines 15-18 of McCarthy). Therefore, it would have been obvious to combine McCarthy with Sugiyama in view of Ishikawa, Federspiel and Baron to obtain the invention as specified in claim 16.

**11. Claims 18 and 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiyama (US Patent 5,633,723) in view of Ishikawa (US Patent 5,987,226) and Chino (US Patent 6,118,888).**

**Regarding claim 18:** Sugiyama in view of Ishikawa does not disclose expressly that the interface comprises an ultrasonic pen capture device.

Chino discloses an ultrasonic pen capture device (figure 3(102i) and column 7, lines 14-16 of Chino).

Sugiyama in view of Ishikawa is combinable with Chino because they are from the same field of endeavor, namely the control and processing of digital data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to capture input data using an ultrasonic pen capture device, as taught by Chino. The suggestion for doing so would have been that an electronic pen is simply another useful output device that provides digital data a user may wish to obtain (figure 3 and column 6, lines 66-67 of Chino). Therefore, it would have been obvious to combine Chino with Sugiyama in view of Ishikawa to obtain the invention as specified in claim 18.

**Regarding claim 32:** Sugiyama in view of Ishikawa does not disclose expressly that said multimedia processing system comprises an embedded audio sound localization module.

Chino discloses an embedded audio sound localization module (column 13, lines 5-14 of Chino). By using the gaze object detection portion of the multi-modal interface apparatus, the audio sound localization is determined.

Sugiyama in view of Ishikawa is combinable with Chino because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include the embedded audio sound localization module taught by Chino as part of the overall multimedia processing system. The motivation for doing so would have been to ensure that user input is intended, and the user is not speaking to

Art Unit: 2625

someone else (column 1, lines 52-58 of Chino). Therefore, it would have been obvious to combine Chino with Sugiyama in view of Ishikawa to obtain the invention as specified in claim 32.

**Regarding claim 33:** Sugiyama in view of Ishikawa does not disclose expressly that said multimedia processing system comprises an embedded control motion detection module.

Chino discloses an embedded motion detection module (figure 3(102f) and column 7, lines 33-38 of Chino).

Sugiyama in view of Ishikawa is combinable with Chino because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include the embedded motion detection module taught by Chino as part of the overall multimedia processing system. The suggestion for doing so would have been that detection of a user's motion and gestures is simply another useful electronic means to input data into a computerized system (figure 3 and column 7, lines 2-11 of Chino). Therefore, it would have been obvious to combine Chino with Sugiyama in view of Ishikawa to obtain the invention as specified in claim 33.

**12. Claims 20 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiyama (US Patent 5,633,723) in view of Ishikawa (US Patent 5,987,226) and Hymel (US Patent Application Publication 2003/0220988 A1).**

**Regarding claim 20:** Sugiyama in view of Ishikawa does not disclose expressly that the interface comprises an embedded audio recorder, wherein the time-based media is a series of sounds that are converted into an electrical format by the embedded audio recorder and then provided to the media processing system.

Hymel discloses an embedded (para. 10, lines 22-26 of Hymel) audio recorder (para. 10, lines 14-15 and line 19 of Hymel). As is abundantly well-known in the art, an embedded audio recorder input into a computerized media processing system inputs, as time-based media, a series of sounds that are converted into an electrical format by the embedded audio recorder and then provided to the media processing system.

Sugiyama in view of Ishikawa is combinable with Hymel because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include an embedded audio recorder as part of the interface. The motivation for doing so would have been to allow a user to connect another one of a variety of different types of peripheral devices, thus allowing the user to perform one more of a

Art Unit: 2625

variety of functions (para. 2, lines 1-6 of Hymel). Therefore, it would have been obvious to combine Hymel with Sugiyama in view of Ishikawa to obtain the invention as specified in claim 20.

**Regarding claim 28:** Sugiyama in view of Ishikawa does not disclose expressly that the electronic output system comprises an embedded web page display.

Hymel discloses an embedded web page display (figure 1(130) and para. 11, lines 1-10 of Hymel).

Sugiyama in view of Ishikawa is combinable with Hymel because they are from the same field of endeavor, namely the control and processing of time-based media data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include an embedded web page display as part of said electronic output system. The motivation for doing so would have been to allow a user to display a web page, which is simply one of a plurality of different types of desirable output (para. 2, lines 1-6 of Hymel). Therefore, it would have been obvious to combine Hymel with Sugiyama in view of Ishikawa to obtain the invention as specified in claim 28.

**13. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiyama (US Patent 5,633,723) in view of Ishikawa (US Patent 5,987,226), Korman (US Patent 6,308,887 B1), Hymel (US Patent Application Publication 2003/0220988 A1), Kleinrock (US Patent 5,936,542), and Gerber (US Patent 5,568,406).**

**Regarding claim 22:** Sugiyama in view of Ishikawa and Korman does not disclose expressly that said removable storage device is selected from a group consisting of a DVD, a video cassette tape, a CD, an audio cassette tape, a flash card, a computer disk, an SD disk, and a computer-readable medium.

Hymel discloses a removable storage device selected from among a DVD (para. 10, lines 14-15 and lines 20-21 of Hymel), a video cassette tape (digital camcorder, which, as is well-known in the art, uses a digital video (DV) cassette tape) (para. 10, lines 14-15 and line 20 of Hymel), a CD (para. 10, lines 14-15 and lines 19-20 of Hymel), and an audio cassette tape (audio cassette tape reader is a type of audio player, MP3 player is merely an example) (para. 10, lines 14-15 and line 19 of Hymel), a computer disk (para. 19, lines 8-9 of Hymel), and a computer-readable medium (para. 19, lines 8-9 of Hymel).

Sugiyama in view of Ishikawa and Korman is combinable with Hymel because they are from similar problem solving areas, namely the control of data storage and output. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have available for selection a DVD, a video cassette tape, a CD, an audio cassette tape, a computer disk, and a computer-readable medium. The motivation for doing so would have been to allow a user to connect a variety of

Art Unit: 2625

different types of peripheral devices to an overall system, thus allowing the user to perform a variety of functions (para. 2, lines 1-6 of Hymel). Therefore, it would have been obvious to combine Hymel with Sugiyama in view of Ishikawa and Korman.

Sugiyama in view of Ishikawa, Korman and Hymel does not disclose expressly that the group consists not only of a DVD, a video cassette tape, a CD, an audio cassette tape, a computer disk, and a computer-readable medium, but also a flash card and an SD disk.

Kleinrock discloses storing digital data on a flash card (column 7, lines 34-35 of Kleinrock).

Sugiyama in view of Ishikawa, Korman and Hymel is combinable with Kleinrock because they are from similar problem solving areas, namely the control of data storage and output. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have available for selection a flash card. The suggestion for doing so would have been that a flash card is simply another of many possible storage devices from which to choose (column 7, lines 34-36 of Kleinrock). Therefore, it would have been obvious to combine Kleinrock with Sugiyama in view of Ishikawa, Korman and Hymel.

Sugiyama in view of Ishikawa, Korman, Hymel and Kleinrock does not disclose expressly that the group consists not only of a DVD, a video cassette tape, a CD, an audio cassette tape, a computer disk, a computer-readable medium, and a flash card, but also an SD disk.

Gerber discloses storing digital data on an SD disk (column 10, lines 28-34 of Gerber).

Sugiyama in view of Ishikawa, Korman, Hymel and Kleinrock is combinable with Gerber because they are from similar problem solving areas, namely the control of data storage and output. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have available for selection an SD disk. The motivation for doing so would have been that an SD disk is useful for backing up large amounts of digital data (column 10, lines 23-34 of Gerber). Therefore, it would have been obvious to combine Gerber with Sugiyama in view of Ishikawa, Korman, Hymel and Kleinrock to obtain the invention as specified in claim 22.

**14. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiyama (US Patent 5,633,723) in view of Ishikawa (US Patent 5,987,226) and Kimura (US Patent 5,270,989).**

**Regarding claim 23:** Sugiyama in view of Ishikawa does not disclose expressly that said electronic output system comprises a handling mechanism to accommodate a plurality of removable storage devices.

Kimura discloses a handling mechanism (figure 1(6) of Kimura) that accommodates a plurality of removable storage devices (column 4, lines 46-52 of Kimura).

Sugiyama in view of Ishikawa is combinable with Kimura because they are from similar problem solving areas, namely processing and storing digital output data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to provide a handling mechanism to handle a plurality of removable storage devices, as taught by Kimura. The motivation for doing so would have been to be able to store and select from among a plurality of different available removable storage devices (column 2, lines 38-42 of Kimura). There-fore, it would have been obvious to combine Kimura with Sugiyama in view of Ishikawa to obtain the invention as specified in claim 23.

**15. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiyama (US Patent 5,633,723) in view of Ishikawa (US Patent 5,987,226), Kimura (US Patent 5,270,989), Takemasa (US Patent 5,136,563), and Morinaga (US Patent 4,734,898).**

**Regarding claim 24:** The arguments regarding claim 23 are incorporated herein. Kimura further discloses selecting between handling devices (such as Laser Disc or CD) (column 5, lines 23-30 of Kimura). Both handling devices are of the tray type (column 5, lines 20-27 of Kimura).

Sugiyama in view of Ishikawa and Kimura does not disclose expressly that the group of handling mechanism from which the handling mechanism is selected consists not only of a tray, but also of a feeder and a bandolier.

Takemasa discloses a feeder type handling mechanism (figure 2b; figure 18; and column 5, lines 52-67 of Takemasa).

Sugiyama in view of Ishikawa and Kimura is combinable with Takemasa because they are from similar problem solving areas, namely processing and storing digital output data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include the feeder type handling mechanism taught by Takemasa as another type of handling mechanism from which to choose. The motivation for doing so would have been to provide for compact and reliable insertion and switching of the removable storage devices (column 2, lines 14-16 of Takemasa). Therefore, it would have been obvious to combine Takemasa with Sugiyama in view of Ishikawa and Kimura.

Sugiyama in view of Ishikawa, Kimura and Takemasa does not disclose expressly that said group of handling mechanism from which the handling mechanism is selected consists not only of a feeder and a tray, but also of a bandolier.

Morinaga discloses a bandolier type handling mechanism (figure 3a and column 4, lines 53-62 of Morinaga).

Art Unit: 2625

Sugiyama in view of Ishikawa, Kimura and Takemasa is combinable with Morinaga because they are from similar problem solving areas, namely processing and storing digital output data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include the bandolier type handling mechanism taught by Morinaga as another type of handling mechanism from which to choose. The motivation for doing so would have been to be able to store even more removable storage devices that with the tray or feeder type handling mechanisms while preventing damage to the removable storage devices (column 2, lines 14-24 of Morinaga). Therefore, it would have been obvious to combine Morinaga with Sugiyama in view of Ishikawa, Kimura and Takemasa to obtain the invention as specified in claim 24.

**16. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiyama (US Patent 5,633,723) in view of Ishikawa (US Patent 5,987,226) and Steinberg (US Patent 6,000,030).**

**Regarding claim 25:** Sugiyama in view of Ishikawa does not disclose expressly that said electronic output system comprises a media writer selected from a group consisting of a disposable media writer and a self-destructing media writer.

Steinberg discloses a disposable media writer (column 4, lines 16-20 of Steinberg) and a self-destructing media writer (column 5, lines 28-36 of Steinberg).

Sugiyama in view of Ishikawa is combinable with Steinberg because they are from similar problem solving areas, namely the control and storage of digital data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to provide for digital data output a group of media writers consisting of a disposable media writer and a self-destructing media writer, as taught by Steinberg. The motivation for doing so would have been prevent unauthorized access to computer files (column 1, lines 43-50 of Steinberg). Therefore, it would have been obvious to combine Steinberg with Sugiyama in view of Ishikawa to obtain the invention as specified in claim 25.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Thompson whose telephone number is 571-272-7441. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2625

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30 August 2007



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